The Flyway

Spring 2017

Quarterly newsletter for Billy Frank Jr. Nisqually and Grays Harbor National Wildlife Refuges

Contents

Big, bold,	
and loud	1
On the Wing	2
Spring Guided Walks	3
Shorebird lesson	6
Critter Cart	6
Clarice McCartan Award	7
Volunteers Celebrated	7
Hello, Jennifer	8
Welcome, Peter	8
Michael Schramm at New Refuge	9
Through the	



Save the Dates!

The 2017 **Grays Harbor** Shorebird and Nature Festival will be held May 5-7 in Hoquiam.

Big, Bold, and Loud

By Susie Hayes

Walking through the riparian forest trail on the Refuge early in the morning all the birds are a twitter. Suddenly a very loud call rings out that sounds like it

should be in a tropical forest: a high, clear piping call that often last many seconds and is a repeating "wuk-wuk -wuk" The Pileated Woodpecker punctuates the forest for all to hear, "Good morning, here I am!" It is a distinctive laugh that brings Woody Woodpecker to mind. This is often followed with

whacking on dead trees. This woodpecker is one of the largest, most striking forest passerines in North America, black plumage with white stripes down its neck and a flaming red crest.

The riparian forest (riparian literally means forest next to water) on the Refuge along the Nisqually River is a mature forest of Cottonwood and Big Leaf Maple with the occasional Red Alder. The riparian forest holds the rivers banks with its roots protecting against erosion and its leaves providing shade to keep the river cool for salmon habitat in summer and fall. Also among the mature trees are snags (standing dead trees) and downed logs playing an essential role for woodpeckers and

other wildlife. Found in the dead wood are beetles, ants, termites and other borers, the decomposers of the forest and the primary food source for most woodpeckers. The Pileated Woodpecker splinters large wood pieces in search

of its favorite food, carpenter ants. They are also known to eat beetles, berries, and nuts. Their cavity nests are larger holes with a deep vertical cup added on. Owls, swifts, ducks, bats and other wildlife might take advantage of ready-made holes for shelter or perhaps nests. The dead trees and downed logs are an important com-



ecosystem providing food and homes to a variety of animals.

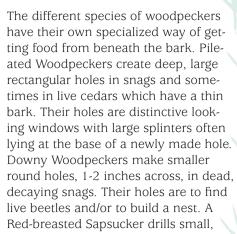




Photo by Michael Schramm

Continued on page 2

On the Wing

By Glynnis Nakai, Refuge Manager

The Refuge staff extends a sincere thank you to the many volunteers who contribute their time, energy,

and commitment to the Nisqually National Wildlife Refuge Complex. You are so dedicated to the Refuge purposes and assisting us with all programs: visitor services, environmental education, biology/habitat, administrative, and maintenance. Always welcoming and attentive to visitors' inquiries, you are a big part of the visitor experience. In a sense, volunteers are our eyes and ears on the Refuge and connect with visitors throughout the day. Occasionally, volunteers may observe activities that are not

allowed and will inform the visitor of this. It is okay to educate visitors on Refuge etiquette. But we want you to know if a visitor becomes agitated because you are correcting them, that you should always put your safety first and go ahead and move on. Someone asked if they should record the activity with photos and the answer is "no" because it is often not received well by the person being photographed and could exacerbate the situation. The best thing is to let Refuge staff know

what you observed. We keep a record of incidents occurring on the Refuge even if all we know is the activity, when, and where. We recommend volunteers have the Refuge phone number saved on your mobile phones in the event a call is necessary. But fortunately for all of us, this is a rare occurrence. We are primarily visited by those enjoying the wildlife and being outdoors and recognize the volunteers as a source of knowledge and assistance.

Alone we can do so little; together we can do so much.

—Helen Keller



From page 1

shallow holes all in a line on a healthy tree. The purpose is to create just enough injury to the tree that sap, their preferred food, drips out. Then the sapsucker will return in a few days and many more times thereafter to lick up the running sap. (Hummingbirds might also feed on the sap in the spring.)

How do these woodpeckers whack the wood with such

Published quarterly by the Friends of Nisqually National Wildlife Refuge Complex.

Phone: 360.753.9467 Fax: 360.534.9302

www.fws.gov/refuge/billy_frank_jr_nisqually www.fws.gov/refuge/grays_harbor

Volume 9, Number 1 Editor: Susie Hayes

Editorial Advisors: Jennifer Cutillo,

Peter Yager

Graphic design: Lee Miller

Save trees, think green.

To receive *The Flyway* electronically, email **nisqually@fws.gov**

force? All woodpeckers have very stiff tail feathers, large shafts, to act as a brace and leverage against the tree with two toes pointed forward and two toes pointed backward for a sure grip. The big question is how do they avoid brain injury? It just so happens that a material science engineer (as well as an enthusiastic birder) teamed up with comparative biology scientists to study this very question. First watching films, they found the woodpeckers hit the wood at about 15 mph, and the duration of impact is a about a millisecond. Comparing human brains and woodpecker brains, a woodpecker can tolerate 64 times what a human brain can upon impact at 15 mph. Next they studied skeletons and the brains of woodpecker specimens expecting to find a cushion or sponge like material protecting their brains but found no protective material. These studies and using a lot of physics they concluded there are 3 factors why woodpeckers are able to avoid brain injury: small brain size (mass), orientation of the brain (impact spread out over larger area of the brain), and duration of impact (only a millisecond). All of this adds up to an amazing bird with many adaptations for a very specialized niche in the forest.

On your walks through the riparian forest on the Refuge or any mature forest, see if you can spot all three types of woodpecker holes in the trees. The different species of woodpeckers are able to live together because of their specialized natures of using the trees and snags found in mature forests or in old woodlots with dead and down trees in urban settings. So the next time you hear the loud, laughing Pileated Woodpecker, smile, you happen to be sharing a very special place with a pretty unique bird.

Spring Guided Walks

April

Saturday, April 1

Our Amazing Plant World

1:00pm - 3:00pm

Spring is the perfect time to experience the Refuge plant life is all its diversity! Join Dave Zink on a nature walk through the Refuge—all the while learning about plant-insect interactions, adaptations for survival and other interesting facts. You only live once: Stop to smell the flowers! Meet at the flagpole in front of the Visitor Center.

Sunday, April 2

Home Sweet Home

11:00am - 12 noon

Enjoy a short walk through the various habitats of the Refuge, exploring all there is to see! Along the way, hear some tales of the Squalli Absch natives, farmer Brown, and the events surrounding the Medicine Creek Treaty. Meet Sue Stone at the flagpole in front of the Visitor Center.

Saturday, April 8

A River Runs Through It

11:00am - 12:30pm

Ever wonder why skunk cabbage stinks? If all woodpecker holes are the same? Everything has a story to tell, and Ellen Sweetin is here to help translate. Join her on a walk through the remarkable riparian forest and get to know the incredible inhabitants. All ages welcome, curious minds encouraged. Meet at the landing overlooking the pond at the Visitor Center.

Sunday, April 9

The Nisqually and Medicine Creek: Where Nature, Culture and History Converge

1pm - 3:00pm

Learn about the events surrounding the signing of the Medicine Creek Treaty; explore how the Nisqually people came to the Nisqually delta and how their lives changed with the settlement of Europeans. Lynn Corliss leads you down history's winding path, where you will discover important things about the people who enjoyed this land before you did. Meet at the flagpole in front of the Visitor Center.

Saturday, April 15

Birds of a Feather: Take Flight on a Bird Walk

8:30am - 12:00 noon

Experience the thrill of seeing a Peregrine Falcon (the world's fastest bird) or hearing a woodpecker pecking away (up to 20 pecks per second)! Join experienced birder David Richardson for a guided walk full of the sights and sounds of one of the Refuge's largest treasures: The birds! Meet at the landing overlooking the pond at the Visitor Center.

Sunday, April 16

Birds of a Feather: Take Flight on a Bird Walk

9:30am - 11:00am

Many species of bird, from the tiny Rufous Hummingbird to the majestic Bald Eagle, nest on the Refuge. Join experienced birder Juni Greenough for a guided walk full of the sights and sounds of one of the Refuge's largest treasures – the birds! Meet at the landing overlooking the pond at the Visitor Center.

Saturday, April 22

Birds of a Feather: Take Flight on a Bird Walk

9:30am - 11:00am

Many species of bird, from the tiny Rufous Hummingbird to the majestic Bald Eagle, nest on the Refuge. Join experienced birder Juni Greenough for a guided walk full of the sights and sounds of one of the Refuge's largest treasures – the birds! Meet at the landing overlooking the pond at the Visitor Center.

Sunday, April 23

A River Runs Through It

11:00am - 12:30pm

Ever wonder why skunk cabbage stinks? If all woodpecker holes are the same? Everything has a story to tell, and Ellen Sweetin is here to help translate. Join her on a walk through the remarkable riparian forest and get to know the incredible inhabitants. All ages welcome, curious minds encouraged. Meet at the landing overlooking the pond at the Visitor Center.



Saturday, April 29

Birds of a Feather: Take Flight on a Bird Walk

9:30am - 11:00am

Many species of bird, from the tiny Rufous Hummingbird to the majestic Bald Eagle, nest on the Refuge. Join experienced birder Juni Greenough for a guided walk full of the sights and sounds of one of the Refuge's largest treasures – the birds! Meet at the landing overlooking the pond at the Visitor Center.

Sunday, April 30

Our Amazing Plant World

1:00pm - 3:00pm

Spring is the perfect time to experience the Refuge plant life is all its diversity! Join Dave Zink on a nature walk through the Refuge—all the while learning about plant-insect interactions, adaptations for survival and other interesting facts. You only live once: Stop to smell the flowers! Meet at the flagpole in front of the Visitor Center.

May

Saturday, May 6

A River Runs Through It

11:00am - 12:30pm

Ever wonder why skunk cabbage stinks? If all woodpecker holes are the same? Everything has a story to tell, and Ellen Sweetin is here to help translate. Join her on a walk through the remarkable riparian forest and get to know the incredible inhabitants. All ages welcome, curious minds encouraged. Meet at the landing overlooking the pond at the Visitor Center.

Sunday, May 7 **Home Sweet Home**

11:00am - 12 noon

Enjoy a short walk through the various habitats of the Refuge, exploring all there is to see! Along the way, hear some tales of the Squalli Absch natives, farmer Brown, and the events surrounding the Medicine Creek Treaty. Meet Sue Stone at the flagpole in front of the Visitor Center.

Saturday, May 13

A River Runs Through It

11:00am - 12:30pm

Ever wonder why skunk cabbage stinks? If all woodpecker holes are the same? Everything has a story to tell, and Ellen Sweetin is here to help translate. Join her on a walk through the remarkable riparian forest and get to know the incredible inhabitants. All ages welcome, curious minds encouraged. Meet at the landing overlooking the pond at the Visitor Center.

Sunday, May 14

Our Amazing Plant World

1:00pm - 3:00pm

Spring is the perfect time to experience the Refuge plant life is all its diversity! Join Dave Zink on a nature walk through the Refuge—all the while learning about plantinsect interactions, adaptations for survival and other interesting facts. You only live once: Stop to smell the flowers! Meet at the flagpole in front of the Visitor Center.



Saturday, May 20

Birds of a Feather: Take Flight on a Bird Walk

8:30am - 12:00 noon

Experience the thrill of seeing a Peregrine Falcon (the world's fastest bird) or hearing a woodpecker pecking away (up to 20 pecks per second)! Join experienced birder David Richardson for a guided walk full of the sights and sounds of one of the Refuge's largest treasures: The birds! Meet at the landing overlooking the pond at the Visitor Center.

Sunday, May 21

The Nisqually and Medicine Creek: Where Nature, Culture and History Converge

1pm - 3:00pm

Learn about the events surrounding the signing of the Medicine Creek Treaty; explore how the Nisqually people came to the Nisqually delta and how their lives changed with the settlement of Europeans. Lynn Corliss leads you down history's winding path, where you will discover important things about the people who enjoyed this land before you did. Meet at the flagpole in front of the Visitor Center.

Saturday, May 27

Birds of a Feather: Take Flight on a Bird Walk

9:30am - 11:00am

Many species of bird, from the tiny Rufous Hummingbird to the majestic Bald Eagle, nest on the Refuge. Join experienced birder Juni Greenough for a guided walk full of the sights and sounds of one of the Refuge's largest treasures – the birds! Meet at the landing overlooking the pond at the Visitor Center.



Sunday, May 28

A River Runs Through It

11:00am - 12:30 pm

Ever wonder why skunk cabbage stinks? If all woodpecker holes are the same? Everything has a story to tell, and Ellen Sweetin is here to help translate. Join her on a walk through the remarkable riparian forest and get to know the incredible inhabitants. All ages welcome, curious minds encouraged. Meet at the landing overlooking the pond at the Visitor Center.

June

Saturday, June 3

Home Sweet Home

11:00am - 12 noon

Enjoy a short walk through the various habitats of the Refuge, exploring all there is to see! Along the way, hear some tales of the Squalli Absch natives, farmer Brown, and the events surrounding the Medicine Creek Treaty. Meet Sue Stone at the flagpole in front of the Visitor Center.

Sunday, June 4

Birds of a Feather: Take Flight on a Bird Walk

10:00am - 11:30am

Many species of birds, from the tiny Rufous Hummingbird to the majestic Bald Eagle, nest on the Refuge. Join experienced birder Terry Hodge for a guided walk full of the sights and sounds of one of the Refuge's largest treasures – the birds! This walk is especially suited for new birders and families. Meet at the landing overlooking the pond at the Visitor Center.

Saturday, June 10

Birds of a Feather: Take Flight on a Bird Walk

8:30am - 12:00 noon

Experience the thrill of seeing a Peregrine Falcon (the world's fastest bird) or hearing a woodpecker pecking away (up to 20 pecks per second)! Join experienced birder David Richardson for a guided walk full of the sights and sounds of one of the Refuge's largest treasures: The birds! Meet at the landing overlooking the pond at the Visitor Center.

Sunday, June 11

The Nisqually and Medicine Creek: Where Nature, Culture and History Converge

1pm - 3:00pm

Learn about the events surrounding the signing of the Medicine Creek Treaty; explore how the Nisqually people came to the Nisqually delta and how their lives changed with the settlement of Europeans. Lynn Corliss leads you down history's winding path, where you will discover important things about the people who enjoyed this land before you did. Meet at the flagpole in front of the Visitor Center.

Saturday, June 17

A River Runs Through It

11:00am - 12:30pm

Ever wonder why skunk cabbage stinks? If all woodpecker holes are the same? Everything has a story to tell, and Ellen Sweetin is here to help translate. Join her on a walk through the remarkable riparian forest and get to know the incredible inhabitants. All ages welcome, curious minds encouraged. Meet at the landing overlooking the pond at the Visitor Center.

Sunday, June 18

Our Amazing Plant World

1:00pm - 3:00pm

Spring is the perfect time to experience the Refuge plant life is all its diversity! Join Dave Zink on a nature walk through the Refuge—all the while learning about plant-in-sect interactions, adaptations for survival and other interesting facts. You only live once: Stop to smell the flowers! Meet at the flagpole in front of the Visitor Center.

Saturday, June 24

A River Runs Through It

11:00am - 12:30pm

Ever wonder why skunk cabbage stinks? If all woodpecker holes are the same? Everything has a story to tell, and Ellen Sweetin is here to help translate. Join her on a walk through the remarkable riparian forest and get to know the incredible inhabitants. All ages welcome, curious minds encouraged. Meet at the landing overlooking the pond at the Visitor Center.



Sunday, June 25

It's In Your Nature: Exploring the Wild

1pm - 3pm

From Bitterns to butterflies, salmonberries to salmon fish, nature on the Refuge takes many forms. Join naturalists Art Pavey and Jan Kramer on this nature walk that is sure to teach you something new about the natural splendor of the Refuge. Meet at the Visitor Center.

What Do an Empty Toilet Paper Roll, a Blown-Up Balloon and a Child-Size Down Vest Have in Common?

By Helen Henry

This past month, Barb Mondau and I volunteered to assist AmeriCorps Education coordinator, Vashti Engebretson. We accompanied her on one of her trips to

third grade classrooms at Lincoln Elementary in Hoquiam. Vashti has been visiting twenty different third and fourth grade classrooms in Grays Harbor County this school year. Her six lessons are designed to teach students about the mudflat habitat of the Grays Harbor estuary where millions of invertebrates sustain thousands of migrating shorebirds that stop to feed and rest at the Grays Harbor National Wildlife Refuge every spring. In this last sentence you just read there are six

major vocabulary words that the students need to understand: *mudflat, habitat, estuary, invertebrates, migrating* and *shorebirds*.

The specific lesson that Barb and I assisted added a

new key vocabulary word... adaptation. After discussing the meaning of adaptation in the animal world, the activity was to relate it to shorebirds specifically by "dressing" a third grader like a shorebird.

After soliciting a volunteer from the class, (no problem since many hands were raised) we proceeded to dress the student like a shorebird using props that represented key adaptations of a shorebirds body that help the birds survive.

First we zipped the student

Continued on page 9



Nisqually Critter Cart Offers Visitors the Chance to See Animals Up Close

By Susan Wineke

If you really want to see some of Nisqually's many animals up close on your next visit, look for the Critter Cart near the fee kiosk this summer. The Critter Cart offers children and adults the opportunity to touch and learn more about some of the refuge's birds and mammals. You can stroke the pelt of a beaver, coyote, and harbor seal. When you examine replicas of these animal skulls, you can observe how well their teeth are adapted to what they eat. While real bird eggs would break easily and perhaps smell, our replicas of eggs for the Red-tailed Hawk and a Rufus Hummingbird are easy to inspect. You also can try on for size the massive rib bone of a Minke Whale and grasp how enormous these four-ton whales can be.

The Critter Cart will welcome visitors from 10:30 a.m. to 1:30 p.m. many Saturdays this summer starting May 27. Refuge volunteers will staff the cart and answer many of your questions. The Friends of Nisqually National Wildlife Refuge is supporting the Critter Cart, now in its third season. To learn if the Critter Cart is offered on a Saturday you want to come, please call the refuge at (360) 753-9467.



John Keith Receives Clarice McCartan Award

By Sheila McCartan

John Keith was presented with the Clarice McCartan Friend of Nisqually Award at the Refuge's annual Volun-

teer Awards Dinner in February. This annual award is given to an individual or group whose work and dedication has gone above and beyond in supporting the mission of the Nisqually National Wildlife Refuge Complex. John recently stepped down from the Friends of Nisqually Board of Directors after serving 16 years



Justin Hall, John Keith, and Sheila McCartan. Photo by Art Pavey

with 10 of those years as President of the organization. During John's tenure on the Board, he had an unwavering dedication to the Friends mission and the support

the Friends provided the Refuge. He spent countless hours on administration of the organization, attending Regional and National Friends conferences, and overseeing all Board activities. This award honors the leadership and hard work John provided over the course of many years. Thank you John for lending your expertise and passion to the Friends and the Refuge.

Volunteer Accomplishments Celebrated at Annual Dinner

By Peter Yager

Almost 250,000 visitors came to the Refuge in 2016, making this one of the busiest Refuges in the system. Supporting an operation this complex would not be possible without the dedication and passion of our volunteers. In 2016, 98 volunteers contributed over 15,000 hours of their time to programs supporting every aspect of the Refuge operation, effectively doubling staff. Vol-

unteers staffed the Visitor Center and the reception desk, as well as assisting with trail roving, education programs, wildlife surveys, interpretation, and annual events.

The outstanding achievements of our volunteers were recognized this year on February 10 at an annual catered dinner and recognition ceremony. Every volunteer's contributions were recognized, not only for hours this year but lifetime hours. Our top five volunteers were singled out for special recognition. Barb Sullivan contributed 450 hours, Dennis Ellison 492, and Art Pavey 545. Distinguished Volunteer Karen Yochem contributed 855 hours this year, bringing her to over 18,000 total hours in 22 years of volunteering at the Refuge.

Volunteer of the year Dick Cormier contributed 778 hours trail roving, interpretive programs, environmental education, and special events.

As a new member to the Refuge staff, I am already been impressed by the scope of work done by volunteers and the passion and dedication of our volunteers. It's an honor to work with such dedicated people and look forward to recognizing their achievements next year.



With our top five volunteers is our Refuge Manager, Glynnis Nakai. Top five volunteers are, left to right, Volunteer of the Year Dick Cormier, Barb Sullivan, Dennis Ellison, Distinguished Volunteer Karen Yochem, and Art Pavey.

Hello Jennifer, Our New Visitor Services Manager

Our new Visitor Services Manager, Jennifer Cutillo has worked at so many amazing parks in so little time. Right out of college she landed a job at Hawaii Volcanoes National Park. She studied endangered birds indigenous to

Hawaii such as the O'mao, 'Apapane, and I'iwi. Soon after, she served as a Park Ranger at Midway Atoll NWR in the middle of the Pacific Ocean giving orientation tours and explaining that fish and wildlife are the priority on the island, not the tourists staying in old navy barracks. The atoll is home to 378,000 pairs of Laysan Albatross, nesting on the 1540 acres of sand. It is also home to Monk Seals, Hawksbill and



Photo by Susie Hayes

Hawaiian Green Sea Turtles, and Spinner Dolphins. Jennifer has worked as a Park Ranger at many National Parks: Acadia, Redwood, Joshua Tree, Glacier Bay to name a few. At each National Park she led interpretive walks connecting people with the park's unique natural history. In her last two jobs, El Malpais National Conservation Area in New Mexico and Rogue River Basin Project in Oregon, her interest turned to educational outreach programs in the surrounding area. In New Mexico she set up an after school program for kids at a

> community center. In Oregon she brought wildlife and environmental science into classrooms. After 20 years of a rich and varied career, Jennifer is very excited to be working at Nisqually Wildlife Refuge Complex that in her words is "vibrant with activity".

Jennifer grew up in Matteson, Illinois, a suburb of Chicago. She attended Carroll College in Waukesha, Wisconsin just south of the Dells and majored in Environmental Science. She met her husband, also a Park Ranger, while working in Glacier Bay National Park. They have two children, a daughter age 6 and a son age 2 that keep them very busy. When asked about hobbies Jennifer's

reply, "Camping and hiking is in our blood, and we hope to bring our sailboat to Puget Sound." They are looking for a house property with acreage so they can raise bees and chickens, garden, and have room for the kids to run. Introduce yourself to Jennifer and you will immediately feel her infectious energy and enthusiasm.

Welcome Peter, Our New Visitor Services Assistant

Choices....two hours from home, your trusty truck hits black ice. First decision, steer towards the snowbank to slow/stop the skid. Oooops.....snowbank is totally frozen and before you know it, you're upside down on the other side of the snow bank. No injuries, thank goodness. But hey, you are on your way to a new job in

Olympia and the pickup isn't going to get you there. Next decision, rent a car, tow the pickup back to the parent's ranch, and continue on so you can report on time for your first day of work. Let me introduce to you, Peter Yager, our new Visitor Services Assistant at the Billy Frank Jr Nisqually Wildlife Refuge Complex. Auspicious start, showing great perseverance.

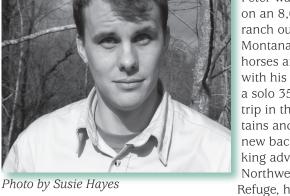
But let's back up 16 years. After graduating from High School from a small town outside Billings, Montana, Peter enlisted in the Army and was stationed at Fort Bragg. He was assigned to psychological operations and deployed 5 times in the Middle

East. His unit's assignment was "to persuade local nationals to support the United States' military objectives" using letters, personal contact, and television ads. After 8 years in the military, he attended Drexel University in Philadelphia where he graduated with a

BA in anthropology. Peter spent two years working for the Red Cross and Grand Teton Lodge Camp before landing a job in Yellowstone National Park as a Ranger at the Mammoth Hot Springs. He also spent a year in Denali National Park, and returned to Yellowstone as an Interpretive Ranger at Mammoth Hot springs for several

winter months before he came here.

Peter was born and raised on an 8,000 acre cattle ranch outside of Billings, Montana. He grew up riding horses and taking pack trips with his horses. He once did a solo 35 day backpacking trip in the Bear Tooth Mountains and looks forward to new backpacking and kayaking adventures here in the Northwest. Being new to the Refuge, he considers himself a novice birder adding to



his list of sighted and learned birds every trail walk. His quest to learn the Natural History of the Northwest is a personal goal. We at the Refuge are happy to have such an enthusiastic new Refuge employee with us. \checkmark

A toilet paper roll, a balloon, and a vest

From page 6

into a down vest. The down in the vest represented, of course, the down feathers that insulate a shorebird and the fabric of the colorful vest represented the contour feathers that cover the down and provide coloration. The empty toilet paper rolls, slipped onto the hands of the

student, represented the hollow bones that make a shorebird's skeleton light. The blown-up balloon represented the air sacs within these hollow bones. The student also acquired three long drinking straw "toes," clipped to each shoe, to help them navigate on the soft mud, like snowshoes help us walk in deep snow. They also wore an oil bottle (gland) attached to their tail

so they can oil their feathers to protect them from the hours of rain they might encounter at Grays Harbor. The students were reminded that shorebirds do not "swim" like ducks or other waterfowl, but still need to keep their feathers waterproof. The student wore a "camouflage" kerchief so they might be protected from an attack by a peregrine falcon. And last but not least, a large beak so they could dig up their meal of invertebrates buried at different lengths in the food-rich mud of Grays Harbor.

Of course, there were lots of giggles and hoots as the student was transformed but any *fun* or *funny* lesson is usually a lesson more likely to be remembered. In one of the classrooms, the "student turned shorebird" was

named Junior, which provided an opportunity to sing the old camp song "Up in the air, Junior Birdman!"

Vashti's follow-up lesson will be to teach the students how to draw a shorebird of the student's choice. Besides teaching the third and fourth graders how to draw shorebirds, Vashti will be teaching the drawing lesson to

an additional twenty first, second, fifth and sixth grades.

These drawings are then used in the Grays Harbor Shorebird Festival poster contest. The contest is open to all elementary students in Grays Harbor County and the top three places for each grade level will be on display at Hoquiam high school during the Shore Bird Festival, May 5-7, 2017.



Vashti works with several Nisqually Wildlife Refuge volunteers. Some volunteers have returned to the same classroom as they enjoy interacting with the same students over time.

Vashti's lessons will enhance the students' understanding of the habitat of Grays Harbor Wildlife Refuge and the life of a migrating shorebird. The content of these lessons will prepare the students for their culminating field trip to Bowerman Basin at the refuge during the migration season of late April, early May. The field trips introduce not only the students but their accompanying parents to the rich resource they have in their very own community.... the Grays Harbor National Wildlife Refuge.

Michael Schramm Becomes Visitor Services Manager at New Refuge

By Sheila McCartan

After five years working as the Refuge's Visitor Services Specialist, Michael Schramm moved onto to another National Wildlife Refuge at the end of January. He is now the Visitor Services Manager at Ohio Rivers National Wildlife Refuge in West Virginia. Many people know Michael through his great pictures and posts to the Refuge's Facebook page and for his expert knowledge of the birds found on the Refuge. Also, Michael worked on weekends so he was a familiar presence to Refuge visitors. Along



Photo by Art Pavey

with managing the Refuge's social media, Michael gave intrepretive programs, coordinated the Refuge's volunteer program, and was an editor of The Flyway newsletter, writing interesting lead articles about the wildlife found on the Refuge.

We'd like to thank Michael for his many contributions and wish him well in his new job.





The Refuge Through the Seasons...



Friends of Nisqually NWR Complex

is a 501(c)(3) nonprofit organization established in 1998 to promote conservation of the natural and cultural resources and fund educational and outreach programs at **Nisqually National**

Wildlife Refuge Complex.



Photos by Michael Schramm

New and Renewing Friends Membership Winter 2017

Senior/Student (\$15)

Gimi Sashaw Connie Nuse Mark Rue Becky Russell Larry Russell Glen Simmekink Irene Von Tobel Kathy Miller Karen Drum Peter V. Kilburn Christine Mackey Bruce Mackey Barb Mondau Jeannette Barreca and Bill Yake Dorothy and Fred Tobiason Diane Kerlin

Judy Hopkins

Lois Ward Elsa A. McLain Phyllis Standifer Karol Erickson Dorothy Ruff

Individual (\$25)

Walter Kuciej Faith Garrick Sarah J. Madsen Lorraine Potter Curt Johnson Judy Schramm Elston Hill Sara Intriligator and Rebecca Laszlo Karen Lewis Marian Shinobu Carol and Robert Hopkins Lesley Roth Elaine Lyle Chris Warlow

Family (\$50)

John and Judy Toone Susie Hayes and Paul Smith Dave and Laura Nicol Carol Faubion Chris Bauermeister Sheila and Lonnie Harper Susan and Rob Ahlschwede Larry and Peggy Erickson Masaharu and Deborah Jones Joe and Kerry Klein Lin Livingston Floella Oatfield David Richardson

Ralph Kendall and

Allan M. Warner

Shirlene Anderson

Carol-Wray Sturgill

□ \$5000 + Corporate Benefactor

Supporting (\$100)

Isabelle Bohnam Martin Bauermeister Ken Batker Marion K. Armstrong Linda and Tim Bates Dwight and Leta Faust Bunny Hyink Jim Neitzel and Charlotte Clark-Neitzel

Bill and Carle Wieland Ed Sakai Sharon Fisher Mary Goodsell

Partner (\$250)

Fred and Margaret Hellberg Donna and Jack Rice



Join Friends of Nisqually NWRC!

-1 km	Name					
	Address	Address				
	City/State/Z	City/State/Zip				
	Email	Email				
Please send information o	n making Frien	ds of Nisqually NWRC a beneficiary of my estate.				
☐ Check here to receive an	electronic vers	sion of <i>The Flyway</i> newsletter by email.				
Individual/Family Memberships		Corporate/Business Memberships				
□ \$15 Student/Senior		□ \$250 Business Sponsor				
□ \$25 Individual		□ \$500 Community Partner				
□ \$50 Family		□ \$1000 Sustaining Business				
□ \$100 Supporting		□ \$2500 Corporate Patron				

Please make checks payable to: Friends of Nisqually NWRC, 100 Brown Farm Rd, Olympia, WA 98516 Your tax deductible contribution will help preserve the unique habitats, fish, and wildlife of the Nisqually Delta and the Grays Harbor Tideflats.

OFFICE USE Rec'd	Mo	New	Renew	Ent	Mld

□ \$250 Partner

□ \$500 Patron

□ \$1000 Benefactor

Friends of Nisqually National Wildlife Refuge

100 Brown Farm Road Olympia WA 98516

Return Service Requested

Non-Profit Org US Postage **PAID** Olympia WA Permit #206

... conserving, protecting and enhancing fish, wildlife and plants and their habitats for the continuing benefit of the American people...

The Grays Harbor Shorebird and Nature Festival May 5–7

The 22nd Annual Shorebird and Nature Festival promises you a great nature experience. Witness an awe-inspiring spectacle as hundreds of thousands shorebirds stop at Grays Harbor National Wildlife Refuge during their transcontinental migration north. Take part in a variety of events including field trips to local birding hot spots, lectures, exhibits, and vendors. The annual dinner on Friday, May 5 features Tim Boyer speaking and sharing his award winning photography.

The topic of this year's lecture is *Understanding Shorebirds, the Miracle of Migration*

www.shorebirdfestival.com 360-289-5048